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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,399	01/06/2004	Andrew S. Yeh	117064	3184
25944	7590	11/25/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			TRAN, HUAN HUU	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/751,399

Applicant(s)

YEH ET AL.

Examiner

Huan H. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, 11-23, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 9, 10 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Harada (JP 2000-263770).

As to claim 1, Harada (JP 2000-263770) discloses a method for reducing or preventing fluid misplacement by a fluid- ejecting head having a plurality of fluid ejectors, the method comprising:

determining delay times between firings of the plurality of fluid ejectors that produce the least amount of ejected fluid misplacement.

In particular in paragraph [0039] Harada discloses a method in which the user chooses the time delay appropriate of a condition wherein the column of printed dots is substantially vertical, i.e. having the least amount of ejected fluid misplacement.

As to claim 4, in paragraph [0039] Harada clearly teaches the limitation "setting delay times between the plurality of fluid ejectors to the predetermined delay times" after the optimum delay time is chosen.

As to claim 5, it is clear that Harada teaches printing data using the set delay times.

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As to claims 6 and 7, it appears that the last five lines of paragraph [0039] discloses the limitation "printing a plurality of data sets comprising pixel data using different delay times between the firings of the plurality of fluid ejectors for each printed data set." In particular, record is performed based on different delay times. After recording is performed, the user then chooses the proper time delay based on the record best observed to be substantially vertical. It is clear that the data stored in RAM 3 or input from input unit 4 comprises images and/or text.

As to claim 8, since the plurality of ejectors disclosed in Harada to be arranged on a straight line (see Fig. 7 and paragraph [0021] , it is clear that the print data comprises straight, vertical lines.

As to claims 11 and 12, it is apparent that the recording is performed on a receiving medium such as paper.

As to claim 13, it is noted that Harada is directed to an inkjet printer. See [0001].

As to claim 14, it appears that the data sets used according to the recording described in [0039] are necessarily identical with different delay times so as to allow determination of the optimum delay time.

As to claim 15, Harada discloses a fluid ejection system that ejects fluids onto a receiving medium, comprising:

one or more fluid ejecting heads having a plurality of fluid ejectors eject fluid (reference H in Fig. 1 and described in paragraphs [0020] to [0021]);

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an electronics system (9) having fluid ejector firing electronics (9A) and at least one delay time buffer (9B); and

a determining unit (9B and CPU 1) that determines delay times that produce the least amount of ejected fluid misplacement.

As to claim 16, Harada teaches a plurality of delay buffers (102, 103, 10N shown in Fig. 2) that allows for independent, variable delay of the plurality of ejectors.

As to claim 17, it is apparent that the delay buffers in Harada allows for a fixed delay of the ejectors if chosen by the user.

As to claim 18, it is clear that with different delay buffers (102, 103, 10N) the delay times are determined for each ejectors. See Fig. 2 and paragraph [0023] to [0024].

As to claim 19, it is submitted that circuit 9B disclosed in Harada anticipates the claimed setting unit.

As to claim 20, the recording head H anticipates the claimed printing unit.

As to claim 21, Harada discloses a receiving medium.

As to claim 22, It is clear that the data stored in RAM 3 or input from input unit 4 comprises images and/or text.

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As to claim 23, since the plurality of ejectors disclosed in Harada to be arranged on a straight line (see Fig. 7 and paragraph [0021] , it is clear that the print data comprises straight, vertical lines.

As to claim 25, it is noted that Harada is directed to an ink jet printer. Hence, the fluid in Harada is ink.

As to claim 26, the receiving medium in the inkjet printer of Harada is typically paper.

#### ***Allowable Subject Matter***

3. Claims 2, 3, 9, 10, 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 2, Harada does not teach or suggest the steps additionally recited.

As to claim 3, Harada does not teach or suggest the claimed measuring step.

As to claim 9, Harada does not teach or suggest the steps additionally recited.

As to claim 10, Harada does not teach or suggest the steps additionally recited.

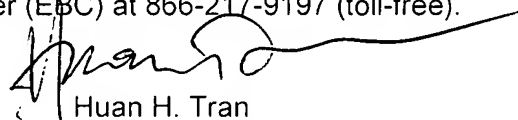
As to claim 24, Harada does not teach or suggest the measurement unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (571) 272-2261. The examiner can normally be reached on at work on W-F from 6:30 to 5; T are telework days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Huan H. Tran  
Primary Examiner  
Art Unit 2861

hht  
11/10/05